

MASTER OF SCIENCE IN INTERNATIONAL RESOURCE PLANNING AND MANAGEMENT

APPLICATION OF SMART CARDS IN THE COLOMBIAN NAVY PERSONNEL MANAGEMENT SYSTEM

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This study examines the potential application of smart cards in personnel resource management in the Colombian Navy. It reviews the organizational and procedural efficiency of the personnel management system and suggests ways in which smart cards might improve its efficiency. Smart card capabilities in improving the personnel management are described. Recommendations are offered for the implementation of a demonstration prototype. A plan for implementing a smart card system throughout the Colombian Navy is suggested.

DoD KEY TECHNOLOGY AREAS: Computer Software, Manpower, Personnel, and Training

KEYWORDS: Colombia, Smart Card Technology, Personnel Resource Management

INTRODUCTION AND IMPLEMENTATION OF INTRANET IN THE ZIMBABWE NATIONAL ARMY

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The objective of this thesis is to make a study of possible introduction and implementation of Intranet in the Zimbabwe National Army. Intranets, internal networks based on the same technology and protocol as Internet (World Wide Web), have emerged in the past five years as the most popular medium of communication within organizations. Many organizations are flocking to this new medium of communication in order to improve and enhance their market share. A quantitative approach in obtaining data through questionnaire for this thesis could not be implemented due to circumstances beyond the control of the author. Limited telephone interviews were then conducted instead. The primary assumption of the thesis was that the introduction and implementation of Intranet is similar to the introduction and implementation of any other information system. Hence, a sample of senior army officers responsible for communication and procurement was interviewed. The interviews revealed that a process of implementing is heavily dependent on such variables as structure, culture, and size of the organization. The process of implementation includes such phases as leadership buy-ins, prototype introduction, and Intranet refinement. The author concludes that implementation of an Intranet would improve on Zimbabwe National Army's communication system.

DoD KEY TECHNOLOGY AREA: Computer and Software

INTERNATIONAL RESOURCE PLANNING AND MANAGEMENT

KEYWORDS: Intranet in the Zimbabwe National Army

THE EFFECTS OF THE FINANCIAL CRISIS ON THE MILITARY IN THAILAND

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The Thai financial crisis directly effects the Thai military. Although the Thai government with the cooperation of IMF applied the expansionary financial and monetary policy to stimulate the domestic economy situation, the defense budget still bore the high burden from the fiscal budget adjustment. This adjustment pattern, however, followed on the historical expenditure reduction pattern that Hicks noticed in the high debt countries during 1970s-80s. In the short-term, the effects on Thai military mainly came from the real-term reduction in defense budget. It deteriorated the capability, readiness, and the modernization process of Thai armed forces. The long-term effects come from the decline in proportion of defense budget in GNP and central government budget as well as the revival of the Thai economy. These effects tend to force the Thai armed forces to restructure their organization.

DoD KEY TECHNOLOGY AREA: Other (Thailand)

KEYWORDS: Financial, Thailand Military

STRUCTURAL ANALYSIS AND MODELING FOR COMMAND

DECISIONS DURING FIRE ON BOARD SHIPS

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This thesis examine opportunities for the application of information technology through mathematical modeling and design of a new method of a ship's space monitoring for the support of command decisions during a fire on board. The thesis analyzes peculiarities of a fire and difficulties inherent in gathering data, particularly the lack of objective information about a fire scale, fire dynamics, and timing of functioning the ship's equipment during an emergency aboard. It was shown that, in a closed compartment, a gas pressure monitoring is a very perspective way of determining a fire scale and its propagation ability.

The appropriate models of fire development were created. They were designed in a way of using only those data that were possible to observe during a fire on board. Depending on availability and quality of current information about the fire, an informative tree of alternative scenarios of the fire hazard analysis and command decisions was developed.

Conducted in terms of decision theory concept, formalization of fire-fighting procedure permitted to accomplish structural and cost benefit analysis of the command decisions during a fire on board. Relevant chronological decision tree diagrams were designed. Structural analysis proved that application of information technology and new method of gas pressure monitoring significantly increases efficiency of command decisions during a fire without considerable additional costs.

DoD KEY TECHNOLOGY AREA: Command, Control, and Communications

KEYWORDS: Fire Damage Control Systems, Air Pressure Monitoring, Fire Modeling, Application of Information Technology, Decision Making Support

INTERNATIONAL RESOURCE PLANNING AND MANAGEMENT

SUPER 301 AND THE TRADE DEFICIT

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The thesis considers the issues associated with one of the amendments of Section 301 of the Trade Act of 1974 - the so-called Super 301. It was included in the Omnibus Trade and Competitiveness Act of 1988. This measure was passed to solve problems with the U.S. bilateral trade deficits, which were considered to be a consequence of trade barriers to U.S. exports in foreign countries. Under Super 301 the United States presses foreign countries to eliminate unfair trade practices under threat of unilateral retaliation. The paper explores the history of Super 301, the cases of its application, the extent to which it achieved its purpose, and its implications for the international multilateral trade agreements. The paper concludes that the Super 301 has failed to eliminate the problem of the U.S. bilateral trade deficit with Japan, and has inspired resentment on the part of U.S. trading partners to negotiate under threat of punishment.

DoD KEY TECHNOLOGY AREA: Other (Trade Policy)

KEYWORDS: Trade Legislation, Bilateral Trade Deficit, Trade Retaliation, Trade Disputes